South Afr J Anaesth Analg. 2024;30(3):79-84
https://doi.org/10.36303/SAJAA.3096

South Afr J Anaesth Analg
ISSN 2220-1181 EISSN 2220-1173

ORIGINAL RESEARCH

The prevalence and impact of workplace bullying among anaesthetists

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Background: Awareness of workplace bullying and its potentially detrimental effects is increasing. Numerous studies have highlighted the problem within the medical field. However, limited studies exist within the South African doctor workforce, and fewer within specific disciplines. This study aimed to determine the prevalence, risk factors, and impact of workplace bullying among anaesthetists within the eThekwini public sector.

Methods: This was a survey-based study, incorporating the use of the Negative Acts Questionnaire-Revised (NAQ-R) to probe the prevalence of bullying objectively and subjectively, with open-ended questions to reveal the impact. Demographic data was also collected. Chi-square tests and logistic regression models were used to analyse the quantitative data, and the qualitative data was analysed thematically.

Results: Workplace bullying was experienced objectively by 38.66% of respondents and subjectively by 32.77%. Women were twice as likely to be bullied than men. Registrars and senior consultants were also more likely to be bullied than medical officers. Having more than five years of experience increases the risk. The negative impact of workplace bullying on personal life, job or career, and patient care is presented. Aspects affected include physical and mental well-being, personal relationships, job satisfaction and performance, and the quality of patient care.

Conclusion: Workplace bullying is a concern within our medical context. Its effect on personal well-being and patient care can be deleterious. Root causes must be investigated, and strategies developed to mitigate this problem.

Keywords: bullying, workplace bullying, anaesthesia

Introduction

A discussion of bullying usually elicits thoughts of the schoolyard. However, bullying is not confined to the domain of childhood. Bullying culture pervades all spheres of life and extends into the workplace, although the nature of the bullying may become more subtle.[1]

There is no universal definition of bullying. Einarsen et al. describe bullying as repeated and unwanted actions and practices directed against one or more workers.[1] These actions, carried out either deliberately or unconsciously, cause humiliation and distress. This could interfere with work performance or cause unpleasant working conditions.[1] It is open to debate whether single or multiple acts of bullying are needed to comply with this description.[2] Another dimension of bullying that has been mentioned is the power imbalance between the parties involved, be it hierarchical in nature or more informal, such as related to knowledge or experience, leading to feelings of powerlessness by the victims.[1]

There is no definition of workplace bullying in South African legislation, but it is included in the broad definition of harassment.[3] Harassment is classed as unfair discrimination and falls within the jurisdiction of the Employment Equity and Promotion of Equality and Prevention of Unfair Discrimination acts.[4,5] Along with the definition of bullying, there needs to be an understanding of what does not constitute bullying. Reasonable instructions given by employers are not bullying. Neither are appropriate instructions or teaching that occurs in the process of training.[6]

In recent years, workplace bullying has become very topical, with public and academic awareness of the problem increasing worldwide. Interest and research began in the 1980s with Heinz Leymann, whose investigation confirmed the presence of workplace bullying in Scandinavia, albeit using the term "mobbing" instead of "bullying".[1] A multitude of research has been conducted globally since, documenting the phenomenon, as well as the significant detrimental psychosocial effects of bullying.[2,7-26] There are vast variations in the prevalence of workplace bullying, which may be accounted for by the lack of a universal definition and differing methodologies. In 2001, Salin illustrated this by comparing two different strategies for measuring the prevalence of bullying in her sample of 377, with results of 8.8% and 24.1%, respectively.[7] In an effort to standardise the study of workplace bullying, the Negative Acts Questionnaire-Revised (NAQ-R) has been proposed to allow for better comparison.[27]

Mostert and Cunniff evaluated employees across six sectors; 31% of their sample of 13 911 reported frequent experiences of overall workplace bullying in their organisations.[8] Meanwhile, Visagie et al. classified 40% of respondents in their South African mining sample as bullying targets.[8,9] Kalamdien's study in the Western Cape identified a slightly higher percentage of 44% of bullying victims.[10] In 2003, Steinman led an International Labour Office study on workplace violence in the health sector.[11] A total

of 62% of all healthcare workers in South Africa experienced at least one incident of physical or psychological workplace violence, of which almost half experienced incidents of verbal abuse, bullying, or mobbing.[11]

Among the different work sectors, healthcare professionals may be more at risk of workplace bullying than employees in other industries because of the stressful nature and responsibility of the job, the pace of the work environment, and the emphasis on performance.[12] In South Africa, awareness and study of workplace bullying is not yet as widespread, although it is increasing. There are limited studies on bullying within the South African doctor workforce, and fewer within a specific discipline. In 2021, Beath et al. reported on bullying during specialist training in psychiatry, with 48.6% of their sample having been bullied.[13]

The operating theatre is a closed environment, with medical personnel from multiple disciplines and across hierarchical levels converging within this limited space. The stress and pressure of working within this environment may inevitably result in heightened levels of conflict, not only between the different disciplines but also among colleagues working in the same field. This study aims to determine the prevalence, risk factors, and impact of workplace bullying among anaesthetists within the eThekwini public sector hospitals.

Methods

Ethical approval was obtained from the Biomedical Research Ethics Committee at the University of KwaZulu-Natal (BREC/00001628/2020).

Study design

This study was intended as a mixed quantitative and qualitative study. The strategy of inquiry was survey-based, along with a request for volunteers to be interviewed in person by the author. Unfortunately, there were no volunteers, making this a predominantly quantitative survey.

Setting

The planned setting was all public sector hospitals in the eThekwini Municipality. The hospitals that provided approval included Addington Hospital, Inkosi Albert Luthuli Central Hospital, King Edward VIII Hospital, Mahatma Gandhi Memorial Hospital, McCord Hospital, R.K. Khan Hospital, St Aidan's Mission Regional Hospital, and Prince Mshiyeni Memorial Hospital.

Study population

The survey was distributed to anaesthetists in the approved hospitals in the state sector within the eThekwini Municipality using a convenience sampling method. The inclusion criteria were medical officers, registrars, and consultants working within the anaesthesia department, with a minimum of six months of clinical experience. Rotating interns and intensivists were excluded from the study. At the time of the study, 148 anaesthetists met the inclusion criteria.

Following statistical advice, a sample size of 99 was calculated using G*Power statistical software to detect an association between demographic/social characteristics, such as professional rank and percentage bullied, with a medium effect size (0.32), 80% power, 95% probability, and assuming equal numbers in each group.

Data collection

The NAQ-R, a validated tool from the University of Bergen, was used to probe the incidence of bullying.[27] It is an inventory for measuring the frequency, intensity, and prevalence of workplace bullying. In addition, demographic data and three open-ended questions were added to elicit risk factors and the impact of bullying.

The NAQ-R consists of 22 items measuring exposure to work- and person-related negative acts and behaviours in the previous six months. The answers are weighted from 1 to 5, with a possible maximum total of 110. A total score of 33 and above is considered occasional bullying, while 45 and above is considered workplace bullying. After that, item 23 provides a definition of bullying to elicit a single-item measure of self-labelled bullying. This subjective response from respondents allows a comparison with the objective measure of the NAQ-R score.[27]

The demographic data surveyed included age, sex, rank, whether a foreign graduate or not, years of experience, race, and disability. Race was self-defined and included as a relevant risk factor. The three open-ended questions on the impact of bullying followed if the respondent indicated that he or she had been bullied in Question 23 of the NAQ-R.[27] The questions are related to the impact of bullying on personal life, job or career, and patient care. Individual interviews, to be conducted by the researcher, were requested to gain a further in-depth understanding of the impact of bullying. This would have allowed the respondent an opportunity to tell his or her story and elaborate beyond the written questions, providing richness to the data.

The surveys did not include any identifying data. They were distributed by the researcher to the various hospitals and left within the anaesthetic departments to allow for voluntary completion at the respondents' discretion. Completed surveys were collected from anonymous drop boxes or in sealed envelopes.

Analysis

Quantitative data analysis was done using Stata 17. All categorical variables were summarised as frequencies and percentages. The NAQ-R was dichotomised into "not bullied" versus "bullied".[27] Chi-square tests and logistic regression were used to identify demographic factors associated with bullying. Odds ratios, 95% confidence interval, and *p*-values are reported. The level of significance was kept at $p < 0.05$.

The data collected from the three open-ended questions was inductively analysed using NVivo (Release 1.7.1) software. After

initial coding, themes were identified and organised into three main categories related to the questions asked.

Results

Quantitative data

The NAQ-R displayed a Cronbach alpha coefficient of 0.92.[27] A total of 119 completed surveys were collected, with a response rate of 80%. Table I represents the demographics of the study sample. Table II displays the frequency of bullying based on the NAQ-R score.[27] Table III displays the frequency of bullying based on subjective responses.

Table I: Demographics of the study sample

Characteristic	*n*	%
Age group		
< 34	56	47.06
35–44	48	40.34
45–54	11	9.24
≥ 55	4	3.36
Total	119	100
Sex		
Female	71	59.66
Male	48	40.34
Total	119	100
Rank		
Medical officer	47	39.50
Registrar	35	29.41
Junior consultant	23	19.33
Senior consultant	14	11.76
Total	119	100
Foreign		
Yes	6	5.04
No	111	93.28
Unknown	2	1.68
Total	119	100
Race		
Black	27	22.69
Indian	59	49.58
White	20	16.81
Coloured/mixed	8	6.72
Missing	5	4.20
Total	119	100
Disability		
Yes	1	0.84
No	117	98.32
Unknown	1	0.84
Total	119	100
Years of experience		
≤ 5	42	35.29
> 5	77	64.71
Total	119	100

Table II: Frequency of bullying based on the NAQ-R[27]

NAQ-R categories	*n*	%
Not bullied < 33	73	61.34
Occasionally bullied 33–44	26	21.85
Bullied ≥ 45	20	16.81
Total	119	100

Table III: Subjective prevalence of bullying

Bullied	*n*	%
Never	80	67.23
Now and then	23	19.33
Monthly	10	8.40
Weekly	5	4.20
Daily	1	0.84
Total	119	100

Table IV compares the extent of bullying using the objective measure between the different demographic groups, and identifies the odds of being bullied across the groups.

Data from the open-ended questions

While only 39 respondents identified themselves as being bullied, there were 43 responses to the open-ended questions in the survey, all of which were used for analysis. These responses were sparse in detail. Table V outlines the themes identified. All themes represented were of a negative nature.

Impact on personal life

Of the 43 responses, 81% reported an impact on their personal life. The themes that emerged were physical, psychological, and regarding family and personal relationships. The physical effects of bullying included insomnia, fatigue, exacerbation of chronic illnesses, and "stress-related illness". Features of burnout were reported, which could fall into both the physical and psychological effects of bullying.

There were numerous statements about the negative psychological consequences of bullying. There were 25 responses describing low self-esteem, low self-worth, and decreased confidence. Emotional effects included depression, anxiety, apathy, mood swings, anger, and worry. One report was of anxiety that was severe enough to warrant medication. "I started drinking alcohol in my reg time" was one response of substance use.

A negative effect on family life was reported by some. Bullying resulted in a limited capacity for the demands of home and family, neglect of personal relationships, and poor interpersonal interactions. As stated by one respondent, the family was on the receiving end of anger and irritability. Social withdrawal and isolation were also experienced.

Table IV: Demographic factors associated with being bullied

	NAQ-R							
	Not bullied		Bullied					
	Score < 33		Score ≥ 33		Total	Odds of being bullied		
	(*n* = 73)		(*n* = 46)					
	n	%	*n*	%	*n*	*p*-value	OR	95% CI
Age group								
≤ 34	32	57.14	24	42.86	56	1	1	1
≥ 35	41	65.08	22	34.92	63	0.38	0.72	0.34–1.50
Sex								
Male	35	72.92	13	27.08	48	1	1	1
Female	38	53.52	33	46.48	71	**0.03**	2.34	1.06–5.15
Rank								
Medical officer	35	74.47	12	25.53	47	1	1	1
Registrar	17	48.57	18	51.43	35	**0.02**	3.09	1.22–7.85
Junior consultant	16	69.57	7	30.43	23	0.67	1.28	0.42–3.85
Senior consultant	5	35.71	9	64.29	14	**0.01**	5.25	1.47–18.78
Race								
Black	18	66.67	9	33.33	27	1	1	1
Indian	34	57.63	25	42.37	59	0.43	1.47	0.57–3.81
White	12	60.00	8	40.00	20	0.64	1.33	0.40–4.43
Coloured/mixed	6	75.00	2	25.00	8	0.66	0.67	0.11–3.99
Missing	3	Excluded	2	Excluded				
Years of experience								
≤ 5	31	73.81	11	26.19	42	1	1	1
> 5	42	54.55	35	45.45	77	**0.04**	2.35	1.03–5.34

CI – confidence interval, OR – odds ratio

Impact on job or career

A total of 88% reported that bullying affected their job or career. Major themes were job dissatisfaction, a desire to leave, and adverse effects on job performance. Of the respondents, 49% expressed job dissatisfaction. Descriptions included that "work felt like a hostile place." Not wanting to go to work was a common statement. A respondent described "considering calling in sick when allocated to work with specific consultants," and deliberately arriving late to work. A desire or intention to leave was indicated by 42% of the respondents. Some further clarified that they either wanted to leave their current workplace or the training programme. Three respondents considered leaving medicine as a career.

Several factors were cited for the negative impact on job performance in 37% of respondents. These included anxiety, self-doubt, and a loss of confidence. "Feeling not good enough/ will never achieve full potential at work" and "I often feel that my work is not up to standard" were described. Other reasons included fear, difficulty working with perpetrators, feelings of being monitored, and "constantly feeling targeted". Burnout was implicated in the impact on the job. Performance outside of theatre was also affected, with a respondent stating a loss of interest in pursuing non-clinical work and going the extra mile. Another admitted being less inclined to participate in tutorials.

Impact on patient care

Of the 17 responses, some were unsure of any impact. Themes included decreased quality of care and attitudes towards patients and their well-being. Two respondents admitted to drug errors; however, there was no elaboration. Further examples of the effect on the standard of care included decreased concentration, decreased vigilance, awaiting senior approval before acting in patients' best interest, being less efficient because of practising defensively, and being less willing to do more than was required. Attitude changes included a lack of patience, decreased compassion, and a "don't care attitude" towards patients.

There were no volunteers to participate in a personal interview.

Discussion

The aim was to determine the prevalence, risk factors, and impact of workplace bullying among anaesthetists in the eThekwini public sector hospitals.

Prevalence and risk factors

Numerous studies conducted in the healthcare sector demonstrate the widespread problem of bullying.[11-21] In this study, 38.66% of respondents were objectively bullied, while 32.77% subjectively experienced workplace bullying. The

Table V: Themes from responses to the open-ended questions

Theme	Number of references	% of total responses
Personal life: family and personal relationships		
Negative effect on interpersonal interactions	5	11.63
Unable to meet home and social demands	2	4.65
No work-life balance	1	2.33
Personal life: physical		
Fatigue	3	6.98
Insomnia	3	6.98
Exacerbation of chronic illness	1	2.33
Personal life: psychological		
Decreased self-esteem	14	32.56
Decreased confidence	7	16.28
Anxiety	6	13.95
Negative emotions	6	13.95
Burnout	4	9.30
Decreased self-worth	4	9.30
Stress	1	2.33
Substance use	1	2.33
Job or career		
Job dissatisfaction	24	55.81
Decreased job performance	20	46.51
Desire to leave	18	41.86
Negative work interactions	10	23.25
Bullying worse in junior position	2	4.65
Lack of interest in academic or non-clinical work	2	4.65
Lack of respect as senior	1	2.33
Patient care		
Negative impact on clinical care of patient	10	23.25
Indifferent attitude to patients	3	6.98

discrepancy between the subjective and objective frequencies is worth noting and highlights that respondents perceive themselves as victims less than what is objectively measured. This may be attributed to respondents not identifying certain negative behaviours as bullying. Nonetheless, these frequencies show consistency with international studies.

In 1999, Quine's survey revealed that 38% of staff in a community National Health Service Trust in the United Kingdom reported being bullied.[16] An Australian study in 2012 revealed similar results across their medical workforce.[15] Results of the 2017 multicentre, multispeciality study of the prevalence of workplace bullying among senior medical workforce across New Zealand's public health system showed consistency with Quine et al.[16]

The chance of being bullied is twice as great in women compared with men. This echoes most studies reviewed.[8,11,14,16-19] There was no association with age or race. The findings related to race are unexpected. It may seem self-explanatory that minority ethnic groups are more susceptible to bullying; however, South Africa's turbulent history of racial prejudice and oppression has contributed to Mostert and Cunniff's findings of increased bullying in the majority black race group.[8] Neither was a risk factor in this study.

Compared to medical officers, registrars are three times more likely to be bullied. The traditional hierarchy within medicine may predispose to a culture of bullying. Anecdotally, bullying seems to be entrenched in the training methods, with a history of teaching by intimidation and humiliation. The prevalence reported by Australian and New Zealand anaesthesia trainees is as high as 34%, further illustrating that trainees are more often the victims.[20] In our setting, registrars are not permanent staff and rotate through various hospitals, which may account for them being seen as outsiders and targets for bullying.

Surprisingly, senior consultants were identified as being five times more likely to be bullied than medical officers. This illustrates that bullying is not limited to trainees. This was also evidenced by Shabazz's 2016 study, where it was found that 44% of obstetric consultant respondents in the United Kingdom were victims.[19] A question potentially relevant to interpreting this finding is to ask who the perpetrators are. Even among senior positions, such as the Royal College of Obstetricians and Gynaecologist consultants, bullying was carried out by those senior or at least similar in the hierarchy.[19] The findings in this study may also be influenced by junior doctors being more hesitant and fearful to report bullying.

The duration of experience is also a risk factor. Doctors with > 5 years of experience have twice the chance of being bullied compared to those with ≤ 5 years. Again, less experienced doctors may fear the consequences of reporting bullying. Intuitively, one would expect the findings of rank and years of experience to be reversed, with the more junior and less experienced being bullied more. The NAQ-R probes the incidence of bullying in the previous six months.[27] One consideration is whether the respondents were fully cognisant of this when answering. It is more likely that when taken over a more extended period, the more senior and experienced will have more incidents of bullying to cite. Concerningly, one person reported being bullied daily in our cohort.

Impact of bullying

Bullying is not an innocuous insult. While the qualitative data in this study lacked in-depth information to provide a complete understanding of the impact in this cohort, the available data does point to potentially devastating and widespread effects. Bullying can have a detrimental effect on the victim's physical and mental well-being. There are strong associations with the deterioration of psychological health, increased levels of stress, depression, anxiety, symptoms similar to post-traumatic stress disorder, and substance abuse. Loss of sleep, musculoskeletal complaints, and an increased risk of cardiovascular disease may also be experienced.[11,16,21-25]

Trépanier showed that workplace bullying directly and positively predicts burnout.[26] Many of the above findings from other studies were elicited in this study. The negative psychological effects were pronounced, highlighted by the fact that bullying resulted in a negative self-perception in 58% of those who reported being bullied.

The impact on family and personal relationships may result in the loss of an external support system to help manage the impact of bullying. This may then exacerbate the emotional and physical distress experienced. Family and friends may also be seen as secondary victims, often exposed to harsh treatment from those suffering from bullying.

Workplace bullying results in decreased job satisfaction and increased intention to leave the job or even the profession.[16,21] Both of these were prominently displayed in this study, raising concerns about the impact on the profession and staff retention in an environment that is already deficient in staff trained in scarce skills, such as anaesthesia. Job performance is also compromised by many factors resulting from bullying.

Bullying in the healthcare profession poses concerning risks to patient care. Our findings highlight the potential for severe complications to the patient with reported drug errors, decreased vigilance, and delayed appropriate treatment of the patient. Studies of medical trainees and consultants have also shown an association between reported bullying and reported serious or potentially serious medical errors.[18,19] Attitude changes also compromise the standard of care. Such behaviour can cause harm to the patient, both physically and emotionally, and is in direct conflict with the ethical principles of beneficence and non-maleficence.

Limitations

The focus of this study may have motivated those who have experienced bullying to be more likely to participate, resulting in responder bias. Also, staff may have chosen not to participate in the study for fear of recrimination due to the stigma attached to this topic and the nature of the profession. The demographics of the study may be skewed because many department members had completed their specialist exams but were not in consultant posts.

The qualitative arm of the study was limited due to the lack of in-depth information from the open-ended questions and the lack of volunteers for interviews. Again, fear may have been a factor hindering full disclosure from respondents. Concerns about the confidentiality of personal interviews, with the interviewer/author being a member of the same department, are possible. If the person conducting the interviews was someone outside the department, with no personal links to the department, it may have made respondents feel more comfortable volunteering. An anonymous online inquiry strategy may have garnered more detailed responses and obviated the need for interviews.

Conclusion

It is evident from the findings of this study that workplace bullying exists, as more than a third of anaesthetists working in public sector hospitals in eThekwini experienced bullying. Workplace bullying has been shown to have a detrimental impact on the victims personal life and relationships, their physical and psychological well-being, as well as patient care and career development. This first step of identifying the scope and impact of workplace bullying should lead to investigating the root causes so that long-lasting solutions can be implemented. This needs to be prioritised as an area of concern within the South African healthcare setting.

Acknowledgements

The authors acknowledge Catherine Connolly for her statistical assistance, and Professor TE Sommerville for his extremely helpful input and direction.

Conflict of interest

The authors declare no conflict of interest.

Funding source

No funding source to be declared.

Ethical approval

Approval for this study was granted by the University of KwaZulu-Natal Biomedical Research Ethics Committee (BREC/00001628/2020).

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